



SX011814-A-VSP [↗](#)

Crossed roller bearing

Crossed roller bearingsdimension series 18 to
DIN 616

Technical information



Your current product variant

Preload	VSP	Bearing preload Standard
Lubricant	Standard	

Main Dimensions & Performance Data

d _i	70 mm	Bore Diameter
	0,004 mm	Bore diameter upper tolerance
	-0,015 mm	Bore diameter lower tolerance
D _a	90 mm	Outside Diameter
	0 mm	Outside diameter upper tolerance
	-0,022 mm	Outside diameter lower tolerance
H	10 mm	Height of the assembled bearing
h _i	10 mm	Height inner ring
	0,06 mm	Width upper tolerance
	-0,06 mm	Width lower tolerance
≈m	174,4 g	Weight



Dimensions

D_i	80,5 mm	Inner diameter outer ring
D_M	80 mm	Rolling element pitch circle diameter
d_a	79,5 mm	Outer diameter inner ring
h	10 mm	Height of individual ring
	0 mm	Height of individual ring upper tolerance
	-0,01 mm	Height of individual ring lower tolerance
r_{min}	0,6 mm	Chamfer dimension
S	1,2 mm	Diameter of lubrication hole

Temperature range

T_{min}	-30 °C	Operating temperature min.
T_{max}	80 °C	Operating temperature max.

Calculation factors

	0,01 mm	Running accuracy, radial
	0,01 mm	Running accuracy, axial
VSP_{min}	0,003 mm	Minimum bearing preload
VSP_{max}	0,015 mm	Maximum bearing preload
C_a	16.600 N	Basic dynamic load rating, axial
C_{0a}	52.000 N	Basic static load rating, axial
C_r	11.800 N	Basic dynamic load rating, radial (for radial load only)
C_{0r}	25.500 N	Basic static load rating, radial (for radial load only)
$N_{G\ oil}$	955 1/min	Limiting speed for oil lubrication with preload
N_G Grease	475 1/min	Limiting speed for grease lubrication with preload
	61814	Dimensions identical to ISO dimension series 18



Characteristics



Radial load



Axial load in one direction



Axial load in two directions



Grease Lubrication



Oil Lubrication



Not sealed



Small design envelope